

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Mark D. Amundson, et al. Art Unit : 3762
Serial No. : 09/541,452 Examiner: F. Oropeza
Filed : March 31, 2000 Docket No. 279.152US1
Title : INDUCTIVE COIL APPARATUS FOR BIO-MEDICAL TELEMETRY

#22
B. Webb
11/7/03

APPELLANT'S BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS
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Sir:

This brief is presented in support of the Notice of Appeal filed on August 14, 2003 from the final rejection of claims 2, 6, 8-11, 13-15, 23-26 and 30 of the above identified application, and received by the Office on August 18, 2003. The Final Office Action from which the Appellant hereby appeals is dated April 15, 2003.

This appeal brief is filed in triplicate. Appellant authorizes the Examiner to charge the requisite fee of \$330.00, as set forth in 37 C.F.R. § 1.17(c), to Deposit Account No. 19-0743. If necessary please consider this document to be a petition for extension of time to respond and charge the requisite fee set forth in 37 C.F.R. § 1.17(a), and any additional fees deemed necessary, to Deposit Account 19-0743. Appellant respectfully requests a decision reversing the rejection and objection of pending claims 2, 6, 8-11, 13-15, 23-26 and 30.

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Real Party in Interest

The real party in interest is Cardiac Pacemakers, Inc.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of the Claims

Fourteen claims are pending in the application. The Examiner has rejected all fourteen of the claims. The rejected claims 2, 6, 8-11, 13-15, 23-26 and 30 are the subject of the present appeal. The claims on appeal are set forth in Appendix A.

Claims 1, 3, 4, 5, 7, 12 and 27 were canceled. Claims 16-22, 28 and 29 were withdrawn pursuant to restriction requirements.

Note that claims 2, 6, 8-11, 13-15 were amended to make claim 15 the first independent base claim with claims 2, 6, 8-11, 13 and 14 dependent on claim 15.

Status of Amendments

Claim 13 was amended subsequent to the final Office Action. The Advisory Action dated August 1, 2003 notes that the amendment will be entered. The pending claims listed in Appendix A reflect the state of the claims as amended.

Summary of Invention

The present application claims, in various embodiments, a telemetry coil (110) for communicating with an implanted device (130). In one embodiment, the telemetry coil (110) comprises a plurality of loops of a conductive wire that define a predetermined outer dimension sufficient to allow communication between the telemetry coil (110) and the implanted medical device (130), where the predetermined outer dimension is a diameter in a range of fifteen to forty-six centimeters. The plurality of loops of a conductive wire are wound substantially in a common plane and concentrically around a central core. The loops are positioned around the central core to form a substantially

constant gap between adjacent loops. In one embodiment the core includes a magnetically permeable material.

The present subject matter is particularly useful, among other things, to reduce the discomfort to a patient during telemetry sessions because it results in a thin flexible telemetry coil apparatus that can be placed between the back of a patient and a common examination furnishing and eliminates the need to hold the coil in the optimum location during telemetry sessions. Other variations and embodiments are provided in the specification.

Issues

Whether claims 2, 6, 8 – 11, 13, 14 and 15 are patentable over Brownlee et al. ("Brownlee," U.S. Patent No. 4,134,408) in view of Silvian ("Silvian," U.S. Patent No. 6,301,504) and further in view of Renken ("Renken," U.S. Patent No. 6,009,350) under 35 U.S.C. § 103(a).

Whether claim 23 is patentable over Weijand ("Weijand," U.S. Patent No. 6,298,271) in view of Silvian and further in view of Renken under 35 U.S.C. § 103(a).

Whether claim 24 is patentable over Weijand in view of Silvian and further in view of Renken and further in view of Kung ("Kung," U.S. Patent No. 6,400,991) under 35 U.S.C. § 103(a).

Whether claims 25 and 26 are patentable over Weijand in view of Silvian and further in view of Renken and further in view of Zarinetchi et al. ("Zarinetchi," U.S. Patent No. 6,389,318) under 35 U.S.C. § 103(a).

Whether claim 30 is patentable over Weijand in view of Snell et al. ("Snell," U.S. Patent No. 6,424,867) under 35 U.S.C. § 103(a).

Grouping of Claims

The following claims are grouped together for the purpose of this appeal: claims 2, 6, 8 – 11, 13, 14 and 15 are in a first group, claims 23-26 are in a second group, and claim 30 is in a third group.

The claims within each group stand or fall together. Applicant believes the claims within each group are separately patentable for at least the reasons presented below in the Arguments section of this paper.

The Examiner's Rationale

In rejecting claims 2, 6, 8 – 11, 13, 14 and 15 in view of Brownlee, Silvian and Renken, the Examiner in the April 15, 2003 Final Office Action ("Office Action") states that,

"... Brownlee et al. disclose the invention except for a magnetically permeable core surrounded by the telemetry coil. Silvian discloses ... a transmit coil and a receive coil and teaches the use of a ferrite core ... to support high transmission rates. It would have been obvious to one having ordinary skill in the art at the time of the invention to have used the ferrite core in the Brownlee et al. system in order to enable high transmission rates so data can be transferred without error while preserving the limited power resources of the implanted device.

Modified Brownlee et al. disclose the claimed invention except for the loops around the core being positioned to form a substantially constant gap between adjacent loops. Renken teaches ... using equally spaced telemetry loops/coils with a substantially constant gap for the purpose of creating a sweet spot to increase the telemetry volume. It would have been obvious ... to have used equally spaced telemetry loops/coils with a substantially constant gap in the modified Brownlee et al. system in order to create a large constant telemetry field and enable optimum telemetry communications."

In rejecting claim 23 in view of Weijand, Silvian and Renken, the Examiner states that,

"... Weijand discloses the claimed invention except for a magnetically permeable core surrounded by the telemetry coil. Silvian discloses ... a transmit coil and a receive coil and teaches the use of a ferrite core ... to support high transmission. Therefore it would have been obvious ... to modify the ... improved telemetry as taught by Weijand, with the ferrite core as taught by Silvian to provide a coil configuration that will enable high transmission rates so data can be transferred without significant error while preserving the limited power resources of the implanted device. Modified Weijand discloses the claimed invention except for the loops around the core being positioned to form a substantially constant gap between adjacent loops. Renken teaches ... using equally spaced telemetry loops/coils with a substantially constant gap for the purpose of creating a sweet spot to increase the telemetry volume. It would have been obvious ... to have used equally spaced telemetry loops/coils with a substantially constant gap in the modified Weijand system in order to create a large consistent telemetry field and enable optimum telemetry communications."

In response to the Appellant's argument that the Office Action failed to provide a motivation to combine the Weijand and Silvian references, the Examiner states that a motivation was provided because

"it would have been obvious to modify the ... system having improved telemetry taught by Weijand, with the ferrite core as taught by Silvian to provide a coil configuration to enable high transmission rates so data can be transferred without significant error while preserving the limited resources of the implanted device."

In rejecting claim 24 in view of Weijand, Silvian, Renken and Kung, the Examiner states that,

"Modified Weijand discloses the claimed invention except for the outer dimensions of the first and second telemetry coils being a diameter in a range of fifteen to forty-six centimeters. Kung discloses an electromagnetic field source with two primary coils and teaches that the size of the coil is dependent on how much current you want to induce in the implanted device coils. ... Therefore it would have been obvious ... to modify the modified medical system having improved telemetry as taught by modified Weijand, with the outer dimension of the first and second telemetry coils being a diameter in a range of fifteen to forty-six centimeters as taught by Kung to enable effective and efficient communication of energy between the external device and the implanted device."

In rejecting claims 25 and 26 in view of Weijand, Silvian, Renken and Zarinetchi, the Examiner stated that,

"... it would have been obvious ... to modify the ... improved telemetry as taught by modified Weijand, with the insulated housing for the external telemetry coil that conforms to an irregular surface as taught by Zarinetchi to enable the device to mate with the patient's body so a comfortable and effective interface with the patient is provided."

In rejecting claim 30 in view of Weijand and Snell, the Examiner states that,

"... Weijand discloses the claimed invention except for the second telemetry coil being arranged and operated at a different telemetry operational frequency than the first telemetry coil. Snell discloses a secured telemetry system ... and teaches the use of two telemetry circuits, each circuit with a different telemetry operational frequency to enable communication between two different devices using radio frequency links. ... Therefore, it would have been obvious ... to modify the medical system having improved telemetry as taught by Weijand, with a telemetry coil with two different operating frequencies as taught by Snell to enable simultaneous sending and receiving of communication signals and to enable simultaneous communication to different devices by the originating device, hence improving the communication capability between an implanted device and an external device."

In response to Appellant's argument that the documents do not contain a motivation to make the proposed combination, the Examiner asserts that a motivation was provided because,

"it would have been obvious ... to modify the system as taught by modified Weijand, ... with two different operating frequencies taught by Snell ... The motivation to combine comes from having two telemetry coils and providing the beneficial capability of using the coils to communicate at different frequencies."

In response to Applicant's argument that the proposed combination of Weijand with Snell does not contain all of the elements recited in claim 30, the Examiner asserts that,

"... one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Weijand teaches the two telemetry coils and Snell et al. teach operating telemetry coils at different operating frequencies, hence the combination of Weijand and Snell is deemed to teach the claimed invention."

Argument

The claims under appeal do not stand or fall together. The claims of the first group, namely claims 2, 6, 8 – 11, 13, 14 and 15 concern a telemetry coil with a specific physical construction. The physical construction of the telemetry coil is particularly useful, among other things, to reduce the discomfort to a patient during telemetry sessions because it provides a thin flexible telemetry coil apparatus that can be placed between the back of a patient and a common examination furnishing, and eliminates the need to hold the coil in the optimum location during telemetry sessions.

The claims of the second group, namely claims 23-26, concern an apparatus with two telemetry coils. This is useful, among other things, to prevent far-field magnetic flux from interfering with wireless communication that uses near-field flux linkages.

The third group, namely claim 30, concerns an apparatus with two telemetry coils where the two coils have different operational frequencies. An apparatus with multiple coils with different operational frequencies is useful, among other things, to support different families of implantable devices that have different telemetry operational frequencies.

Rejections Under 35 U.S.C. § 103

I. Summary of Applicable Law

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.*

The court in *Fine* stated that:

Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so."

Id. (emphasis in original).

The M.P.E.P. adopts this line of reasoning, stating that

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure.

M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992). At the same time, however, although it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching

somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979)).

The test for obviousness under §103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985). Furthermore, claims must be interpreted in light of the specification, claim language, other claims and prosecution history. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987), *cert. denied*, 481 U.S. 1052 (1987). At the same time, a prior patent cited as a § 103 reference must be considered in its entirety, "*i.e.* as a *whole*, including portions that lead away from the invention." *Id.* That is, the Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. § 103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990). Finally, the Examiner must avoid hindsight. *Id.*

II. Brownlee, Silvian and Renken

Claims 2, 6, 8 – 11, 13, 14 and 15 were rejected as being unpatentable over Brownlee in view of Silvian and further in view of Renken. Appellant respectfully traverses the rejections and requests a decision withdrawing the rejection as follows:

A. The proposed combination does not teach or suggest all of the elements of independent claim 15.

The claims 2, 6, 8 – 11, 13, 14 depend ultimately on claim 15. Therefore, the rejection to claim 15 will be addressed first.

First, Appellant respectfully submits that the Examiner's reliance on Renken results from a misreading of the term "constant gap." Renken does not refer to a plurality of loops of conductive wire wound substantially in a common plane and concentrically around a common core, where the loops are positioned around the central core to form a substantially constant gap between adjacent loops as recited, among other things, in claim 15. Instead, Renken refers to "multiple identical coils ... equally spaced apart within the volume associated with the implantable medical device." *See* Renken column 7, lines 10-16. It is believed that the "constant gap" the Examiner mistakenly attributed to Renken is actually a gap between placement of multiple, non-concentric coils. The separate coils in Renken are not wound with a common center. Thus, Appellant believes the proposed combination with Renken does not teach or suggest the present subject matter.

Second, Appellant is unable to find in the proposed combination, among other things, a disclosure of a telemetry coil having a "plurality of loops of a conductive wire wound substantially in a common plane and concentrically around a central core, ..., and where the loops are positioned around the central core to form a substantially constant gap between adjacent loops," as recited in claim 15.

In contrast, the cited portions of the references do not describe a telemetry coil where the windings are wound in a common plane. In particular, while ¶ 3 of the Office Action states that Brownlee describes the invention except for the magnetically permeable core and the loops around the core being positioned to form a substantially constant gap between adjacent loops, Applicant is unable to find such a description of a physical arrangement of telemetry coil windings that includes concentric windings within a substantially common plane wound with a substantially constant gap between adjacent loops in Brownlee, Silvian or Renken. In particular, Brownlee does not clearly show that the multiple turns of wire are wound substantially in a common plane. The cited portions of the Brownlee specification are inconclusive and the figures do not clearly show the windings in a common plane.

B. Motivation to pursue the proposed combination has not been established.

Renken asserts that several smaller telemetry coils physically separated from each other has advantages over larger area coils or coils with more windings. *See* Renken column 5 lines 35-53 and column 7 lines 4-23. However, Brownlee asserts advantages from providing "a large diameter telemetry coil." *See* Brownlee column 2 lines 10-14. Renken and Brownlee teach away from combining in the manner proposed. Furthermore, to combine Renken and Brownlee in the manner proposed necessitates a change in the principle of operation of at least one reference. For at least these reasons, Applicant respectfully submits that the asserted motivation to combine is improper and therefore, proper *prima facie* obviousness has not been established.

Claims 2, 6, 8 – 11, 13 and 14 were rejected based on Renken in combination with Brownlee and Silvian. For at least the reasons stated above, Appellant respectfully repeats the discussion traversing the obviousness rejection of independent claim 15 when traversing the obviousness rejections of dependent claims 2, 6, 8 – 11, 13 and 14.

C. The Examiner implies that the subject matter of claims 2, 8 – 11, 13 and 14 are inherent in Brownlee.

The statement in the Office Action that a bed or chair mounting discussed in Brownlee reads as a flexible housing encasing a telemetry coil implies that the subject matter recited in the claims are inherent to bed or chair mountings.

If so, the Examiner has not established a *prima facie* case of inherency because the Examiner must provide basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics of the several claims necessarily flow from the descriptions in the proposed combination of documents.

Appellant respectfully submits that a flexible housing is not inherent in a telemetry coil mounted within a chair or bed because such a mounting does not necessitate the telemetry coil assembly to be flexible. Further, Brownlee does not clearly show a flexible housing where the flexible housing encases the telemetry coil.

Claims 2, 6, 8-11 and 13-15 are believed to be in condition for allowance. Appellant therefore respectfully requests a decision withdrawing the rejection of these pending claims.

III. Weijand, Silvian and Renken:

Claims 23-26 were rejected as being unpatentable over Weijand in view of Silvian and further in view of Renken. Appellant respectfully traverses the rejection and requests a decision withdrawing the rejection as follows:

A. The proposed combination does not teach or suggest all of the elements of independent claim 23.

Claim 23 was rejected based on Weijand, Silvian and Renken. Appellant respectfully submits that the combination fails to teach or suggest the recited subject matter of claim 23. The combination fails to provide the first and second telemetry coils that include one or more loops of a conductive wire, wherein the first telemetry coil and the second telemetry coil are concentrically planarly wound substantially in a common plane, where the conductive wire is wound around a core, and where the conductive loops are positioned around the central core to form a substantially constant gap between adjacent loops, as recited in claim 23. As stated previously, Renken describes multiple, non-concentric coils placed equally apart from each other within the volume associated with the implanted medical device. It is believed that the "constant gap" the Examiner attributed to Renken is a gap between non-concentric placements of the multiple coils.

Claim 24 was rejected based on Weijand, Silvian, Renken and Kung. Claim 24 depends on claim 23. The addition of Kung to the combination of Weijand, Silvian and Renken does not cure the aforementioned shortcomings. Because dependent claims are read together with all the elements of the independent claim, the addition of Kung does not teach or suggest all of the elements of claim 24 read with claim 23.

Claims 25 and 26 were rejected based on Weijand, Silvian, Renken and Zarinetchi. Claims 25-26 are dependent on claim 23. The addition of Zarinetchi to the

combination of Weijand, Silvian and Renken does not cure the aforementioned shortcomings. Because dependent claims are read together with all the elements of the independent claim and any intervening claims, the addition of Zarinetchi does not teach or suggest all of the elements of claims 25 and 26 read with claim 23.

B. Motivation to pursue the proposed combination has not been established.

Renken refers to multiple telemetry coils equally spaced apart from each other. As a result, their individually generated magnetic fields will overlap to create a larger telemetric volume. *See* Renken, Column 7 lines 10-16. Thus, the coils in Renken are arranged to provide a reinforcing effect. In contrast, Weijand refers to an arrangement of coils and circuitry to provide a canceling effect. *See* Weijand, column 3 lines 28-35. The difference of reinforcing versus canceling is further highlighted by the way the electrical connection of the coils differs between Renken and Weijand. Contrast the parallel connection of the coils shown in FIG. 2 of Renken with the series connection shown in FIG. 3A-3C of Weijand. Therefore, combining Renken and Weijand in the manner proposed necessitates a change in the principle of operation of at least one reference. For at least these reasons, Applicant respectfully submits that the asserted motivation to combine is improper and therefore, proper *prima facie* obviousness has not been established.

Claims 23-26 are believed to be in condition for allowance. Appellant therefore respectfully requests an order withdrawing the rejection of these pending claims.

IV. Weijand and Snell

Claim 30 was rejected as being unpatentable over Weijand in view of Snell. Appellant respectfully traverses the rejection and requests a decision withdrawing the rejection as follows:

A. The proposed combination does not teach or suggest all of the elements of claim 30.

The Examiner asserted that Snell discloses "a secured telemetry system for an implantable cardiac device and the use of two telemetry circuits, each circuit with a different telemetry operational frequency..." Appellant respectfully traverses the assertion of obviousness because the combination of Weijand and Snell does not teach or suggest all of the elements of claim 30.

In particular, Appellant disagrees that the cited portions of Snell describe a system with two telemetry operational frequencies. In making the assertion, the Examiner uses a definition of a term inconsistent with the specification of Snell. The cited portions of Snell describe a telemetry system capable of using different *protocols* rather than operational frequencies (see Col. 3 lines 40-47). The term "protocol" as defined in Col. 3 lines 47-53 of Snell refers to different encoding schemes, data transmission rates, or different access codes. In contrast, typically and as used in the present application, operational frequency describes the frequency to which a telemetry antenna, or coil, is tuned. An external telemetry coil ringing at the tuned frequency causes ringing in a coil in the implanted device if the implanted coil is tuned to the same frequency. This tuning involves designing the coils to an inductance and resistance rather than defining bits in a protocol as in Snell (*See* for example page 10 lines 7-16 of the present application).

Thus, in making the rejection by reading the term "protocol" as "operational frequency," the Examiner does not use a definition of protocol consistent with the specification of Snell. Therefore, because Snell does not discuss a first and second telemetry coil each having a different operational frequency, the proposed combination of Weijand and Snell does not teach or suggest all of the elements recited in claim 30.

B. Motivation to pursue the proposed combination has not been established.

Snell refers to an implantable device communicating with multiple communication protocols. *See* Snell column 3 lines 40-53. Weijand refers to reducing noise in telemetry antennas for an external programmer. *See* Weijand, Abstract. Applicant believes the references do not teach, suggest or provide an incentive to make

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the proposed combination because of the dissimilar subject matter discussed in the references.

The asserted motivation to combine is improper. The Office Action states the motivation to combine comes from having two telemetry coils and providing the beneficial capability of using the coils to communicate at different frequencies. This asserted benefit is purportedly achieved by Snell alone without a need to add Weijand. Thus, no motivation is provided to combine Snell with anything in general or with Weijand in particular.

Claim 30 is believed to be in condition for allowance. Appellant therefore respectfully requests an order withdrawing the rejection of claim 30.

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Conclusion

For the foregoing reasons, it is respectfully requested that the Board of Patent Appeals and Interferences order withdrawal of the rejections of claims 2, 6, 8 - 11, 13 - 15, 23 - 26 and 30.

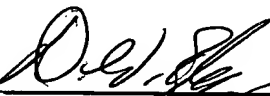
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Mark D. Amundson et al.

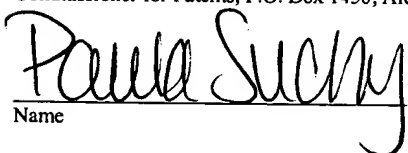
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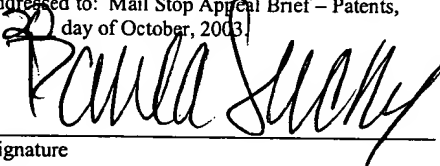
SCHWEGMAN, LUNDBERG, WOESSNER
& KLUTH, P.A.

Dated: October 20, 2003

By: 
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APPENDIX A

Claims Under Appeal:

1. (Canceled)
2. (Previously Presented) The apparatus of claim 15, further including a flexible housing, where the flexible housing encases telemetry coil.
- 3 – 5. (Canceled)
6. (Previously Presented) The apparatus of claim 15, where the magnetically permeable material is made of a ferrite powder.
7. (Canceled)
8. (Previously Presented) The apparatus of claim 2, where the flexible housing is conformable to an irregular surface.
9. (Previously Presented) The apparatus of claim 2, where the flexible housing is constructed of an insulating material.
10. (Previously Presented) The apparatus of claim 2, where the flexible housing is constructed of a material, which retains a formed shape.
11. (Original) The apparatus of claim 10, where the material is polyimide.
12. (Canceled)

13. (Previously Presented) The apparatus of claim 2, further including:

a flexible housing;

a first telemetry coil; and

a second telemetry coil, where the first telemetry coil and the second telemetry coil are concentrically positioned in a common plane within the flexible housing.

14. (Previously Presented) The apparatus of claim 2, further including a padded cover disposed over the flexible housing.

15. (Previously Presented) A telemetry coil for communicating with an implanted medical device, comprising: a plurality of loops of a conductive wire that define a predetermined outer dimension sufficient to allow communication between the telemetry coil and the medical device, where the predetermined outer dimension is a diameter in a range of fifteen (15) to forty-six (46) centimeters, where the plurality of loops of a conductive wire wound substantially in a common plane and concentrically around a central core, where the central core includes a magnetically permeable material, and where the loops are positioned around the central core to form a substantially constant gap between adjacent loops.

16 – 22. (Canceled)

23. (Previously Presented) An apparatus for communication with an implantable medical device, comprising:

a first and a second telemetry coil, where the first and the second telemetry coil include a predetermined outer dimension sufficient to allow communications between the first and the second telemetry coils and the implantable medical device where the first and the second telemetry coils include one or more loops of a conductive wire, and wherein the first telemetry coil and the second telemetry coil are concentrically planarly wound substantially in a common plane, where the conductive wire is wound around a core, where the conductive loops are positioned around the central core to form a

substantially constant gap between adjacent loops, where the core is constructed of a magnetically permeable material that enhances flux density of the apparatus, where the magnetically permeable material includes a ferrite powder; and

a communication lead having a first end and a second end, where the first end is communicatively coupled to the first and the second telemetry coil and the second end adapted to be communicatively coupled to a medical device programmer.

24. (Previously Presented) The apparatus of claim 23, where the predetermined outer dimension is a diameter in a range of fifteen (15) to forty-six (46) centimeters.

25. (Previously Presented) The apparatus of claim 23, further comprising:

a flexible housing, where the flexible housing encases the first and the second telemetry coil, where the flexible housing is conformable to an irregular surface.

26. (Previously Presented) The apparatus of claim 25, where the flexible housing is constructed of an insulating material.

27 – 29. (Canceled)

30. (Previously Presented) An apparatus for communication with an implanted medical device, comprising:

a first and a second telemetry coil concentrically planarly wound substantially in a common plane and each adapted to inductively couple with the implanted medical device, where the second telemetry coil is constructed and arranged to operate at a different telemetry operational frequency than the first telemetry coil; and

a communication lead having a first end and a second end, where the first end is communicatively coupled to the first and the second telemetry coil and the second end is adapted to be communicatively coupled to a medical device programmer.